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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,124	01/28/2004	Koichi Tamura	045054-0157	2246

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EXAMINER	
BRANDT, CHRISTOPHER M	
ART UNIT	**PAPER NUMBER**
2617	
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07/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/765,124	TAMURA, KOICHI	
	Examiner	Art Unit	
	Christopher M. Brandt	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-11,13-17 and 19-23* is/are rejected.

7)☒ Claim(s) *6,12,18 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This action is in response to Applicant's amendment filed on May 7, 2007. **Claims 1-24** are pending in the present application. **This action is made FINAL.**

Response to Arguments

Applicant's arguments with respect to claims 1-5, 7-11, 13-17, 19-23 has been considered but is moot in view of the new ground(s) of rejection.

Specification

The objection to the title has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, 5, 7-9, 11, 13-15, 17, 19-21, 23 are rejected under 35 USC 103(a) as being unpatentable over **Jonsson (US PGPUB 2005/0271122 A1)** in view of **Morita et al. (US PGPUB 2002/0080743 A1, hereinafter Morita)**.

Consider **claim 1 (and similarly applied to claims 7, 13, and 19)**. Jonsson discloses path searching circuit employed in a WCDMA communication system comprising (paragraph 27):

a weighing controlling section to monitor a change of a power level of a sample of each of two or more delay profiles to be used in same power adding processing in delay profile calculation for path search processes and to assign weight to a power level of a specified sample according to a result from the monitoring (paragraph 71, read as the path-searcher 11 of the receiver 10 is run to derive the current power delay profile. The delay powers received during the current path-searcher activation are first selected with the largest powers. Each selected power is ranked and given a ranking weight. In addition, the contribution of delay number 4 is added to the power delay profile discrepancy variable).

Although Jonsson discloses the claimed invention he fails to explicitly teach that the invention is employed in a CDMA communication system and the exercising of a weighting control where a judgment as to whether said weighting control is exercised on a specified sample depends upon a number of sample of a candidate for said weighting control.

However, Morita discloses a CDMA communication system and the exercising of a weighting control where a judgment as to whether said weighting control is exercised on a specified sample depends upon a number of sample of a candidate for said weighting control

(paragraph 41, read as the weight demodulator 18 demodulates the feedback signal to obtain the power comparison result and calculated phase difference, and updates the first and second complex-valued weights based on this power comparison result and calculated phase difference).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Morita into the circuit of Jonsson in order for updating first and second weights used in a base station for modulating the transmission signals (paragraph 7).

Consider **claims 2 and as applied to claim 1 (and similarly to claims 8, 14, and 20)**. Jonsson discloses the method wherein said weighing controlling section saves a sample whose power level exceeds a power threshold value as said candidate for said weighing control (paragraph 71).

Consider **claim 3 and as applied to claim 2 (and similarly to claims 9, 15, and 21)**. The combination of Jonsson and Morita disclose the method wherein said weighing controlling section, when the number of samples of said candidate for said weighing control is 1 (one), assigns negative weight to a power level of the sample (See paragraph 71).

Consider **claim 5 and as applied to claim 1 (and similarly applied to claims 11, 17, and 23)**. Jonsson and Morita disclose the method wherein said weight assigned to said power level of said specified sample by said weighing controlling section is determined based on any one of a fixed value, a maximum power level, and an amount of a change in a power level (Morita; paragraph 39).

Claims 4, 10, 16, and 22 are rejected under 35 USC 103(a) as being unpatentable over **Jonsson (US PGPUB 2005/0271122 A1)** in view of **Morita et al. (US PGPUB 2002/0080743 A1)** and further in view of **Higashi et al. (US Patent 6,026,115)**.

Consider **claim 4 and as applied to claim 2**. Jonsson and Morita disclose the claimed invention except wherein said weighing controlling section, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples.

However, Higashi et al. (hereinafter Higashi) disclose wherein said weighing controlling section, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples (column 5 line 64 – column 6 line 5, read as the paths whose amplitudes exceed the greater first threshold level are combined with other paths after the detection. It is noted that combined is read as weight since the combining is adding to another path).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Higashi into the methods of Jonsson and Morita in order to implement high quality reception with reducing the distortion due to the noise (column 2 lines 35-40).

Consider **claim 10 and as applied to claim 8**. Jonsson and Morita disclose the claimed invention except wherein said weighing controlling means, when a number of samples of said

candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples.

However, Higashi discloses wherein said weighing controlling means, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, assigns negative weight to power levels of the two or more samples (column 5 line 64 – column 6 line 5, read as the paths whose amplitudes exceed the greater first threshold level are combined with other paths after the detection. It is noted that combined is read as weight since the combining is adding to another path).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Higashi into the methods of Jonsson and Morita in order to implement high quality reception with reducing the distortion due to the noise (column 2 lines 35-40).

Consider **claim 16 and as applied to claim 14**. Jonsson and Morita disclose the claimed invention except wherein, in said weighing controlling step, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, negative weight is assigned to power levels of the two or more samples.

However, Higashi discloses wherein, in said weighing controlling step, when a number of samples of said candidate for said weighing control is two or more and when a difference in

power levels among specified samples is a change threshold value or more, negative weight is assigned to power levels of the two or more samples (column 5 line 64 – column 6 line 5, read as the paths whose amplitudes exceed the greater first threshold level are combined with other paths after the detection. It is noted that combined is read as weight since the combining is adding to another path).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Higashi into the methods of Jonsson and Morita in order to implement high quality reception with reducing the distortion due to the noise (column 2 lines 35-40).

Consider **claim 22 and as applied to claim 20**. Jonsson and Morita disclose the claimed invention except wherein, in said weighing controlling step, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, negative weight is assigned to power levels of the two or more samples.

However, Higashi discloses wherein, in said weighing controlling step, when a number of samples of said candidate for said weighing control is two or more and when a difference in power levels among specified samples is a change threshold value or more, negative weight is assigned to power levels of the two or more samples (column 5 line 64 – column 6 line 5, read as the paths whose amplitudes exceed the greater first threshold level are combined with other paths after the detection. It is noted that combined is read as weight since the combining is adding to another path).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Higashi into the methods of Jonsson and Morita in order to implement high quality reception with reducing the distortion due to the noise (column 2 lines 35-40).

Allowable Subject Matter

Claims 6, 12, 18, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding **claims 6** (and similarly **claims 12, 18, and 24**), the following is a statement of reasons for the indication of allowable subject matter: the references Jonsson, Morita, Higashi and a thorough search in the art did not comprehensively read on the limitations recited in the claims. Specifically, wherein when a number of samples of said candidate for said weighing control is 3 (three) or more, a difference between a maximum power level and a minimum power level is compared with said change threshold value or a difference in power levels among samples of delay profiles existing before and after one another in terms of time is compared with said change threshold value.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street

Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Brandt whose telephone number is (571) 270-1098. The examiner can normally be reached on 7:30a.m. to 5p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Christopher M. Brandt

C.M.B./cmb

July 16, 2007

WILLIAM TROST
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